

January 15, 2016

Tom Moe  
USS Corporation  
P.O. Box 417  
Mountain Iron, MN 55768

RE: Project: NPDES-TB Wk 1  
Pace Project No.: 1259371

Dear Tom Moe:

Enclosed are the analytical results for sample(s) received by the laboratory on January 06, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Heather R Zika  
heather.zika@pacelabs.com  
Project Manager

Enclosures

cc: Terri Sabetti, NTS



## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
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## CERTIFICATIONS

Project: NPDES-TB Wk 1

Pace Project No.: 1259371

### Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414  
525 N 8th Street, Salina, KS 67401  
A2LA Certification #: 2926.01  
Alaska Certification #: UST-078  
Alaska Certification #MN00064  
Alabama Certification #40770  
Arizona Certification #: AZ-0014  
Arkansas Certification #: 88-0680  
California Certification #: 01155CA  
Colorado Certification #Pace  
Connecticut Certification #: PH-0256  
EPA Region 8 Certification #: 8TMS-L  
Florida/NELAP Certification #: E87605  
Guam Certification #: 14-008r  
Georgia Certification #: 959  
Georgia EPD #: Pace  
Idaho Certification #: MN00064  
Hawaii Certification #MN00064  
Illinois Certification #: 200011  
Indiana Certification#C-MN-01  
Iowa Certification #: 368  
Kansas Certification #: E-10167  
Kentucky Dept of Envi. Protection - DW #90062  
Kentucky Dept of Envi. Protection - WW #:90062  
Louisiana DEQ Certification #: 3086  
Louisiana DHH #: LA140001  
Maine Certification #: 2013011  
Maryland Certification #: 322  
Michigan DEPH Certification #: 9909

Minnesota Certification #: 027-053-137  
Mississippi Certification #: Pace  
Montana Certification #: MT0092  
Nevada Certification #: MN\_00064  
Nebraska Certification #: Pace  
New Jersey Certification #: MN-002  
New York Certification #: 11647  
North Carolina Certification #: 530  
North Carolina State Public Health #: 27700  
North Dakota Certification #: R-036  
Ohio EPA #: 4150  
Ohio VAP Certification #: CL101  
Oklahoma Certification #: 9507  
Oregon Certification #: MN200001  
Oregon Certification #: MN300001  
Pennsylvania Certification #: 68-00563  
Puerto Rico Certification  
Saipan (CNMI) #:MP0003  
South Carolina #:74003001  
Texas Certification #: T104704192  
Tennessee Certification #: 02818  
Utah Certification #: MN000642013-4  
Virginia DGS Certification #: 251  
Virginia/VELAP Certification #: Pace  
Washington Certification #: C486  
West Virginia Certification #: 382  
West Virginia DHHR #:9952C  
Wisconsin Certification #: 999407970

### Virginia Minnesota Certification ID's

315 Chestnut Street, Virginia, MN 55792  
Alaska Certification #MN01084  
Arizona Department of Health Certification #AZ0785  
Minnesota Dept of Health Certification #: 027-137-445  
North Dakota Certification: # R-203

Wisconsin DNR Certification #: 998027470  
WA Department of Ecology Lab ID# C1007  
Nevada DNR #MN010842015-1  
Oklahoma Department of Environmental Quality

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## SAMPLE SUMMARY

Project: NPDES-TB Wk 1

Pace Project No.: 1259371

Lab ID	Sample ID	Matrix	Date Collected	Date Received
1259371001	SD001 (Seep 020)	Water	01/06/16 11:30	01/06/16 14:15

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## SAMPLE ANALYTE COUNT

Project: NPDES-TB Wk 1

Pace Project No.: 1259371

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
1259371001	SD001 (Seep 020)	EPA 1664 TPH	MBL	1	PASI-M
		USGS I-3765	BEM	1	PASI-V
		EPA 300.0	DMB	1	PASI-V

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## ANALYTICAL RESULTS

Project: NPDES-TB Wk 1

Pace Project No.: 1259371

Sample: SD001 (Seep 020)		Lab ID: 1259371001		Collected: 01/06/16 11:30		Received: 01/06/16 14:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>1664 SGT-HEM, TPH</b>									
Analytical Method: EPA 1664 TPH									
Total Petroleum Hydrocarbons	<b>1.3J</b>	mg/L	5.0	0.37	1		01/13/16 12:05		
<b>USGS I-3765 TSS</b>									
Analytical Method: USGS I-3765									
Total Suspended Solids	<b>1.6</b>	mg/L	1.0	1.0	1		01/12/16 12:06		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0									
Sulfate	<b>1050</b>	mg/L	20.0	0.89	10		01/12/16 01:12	14808-79-8	

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## QUALITY CONTROL DATA

Project: NPDES-TB Wk 1

Pace Project No.: 1259371

QC Batch: WET/46018

Analysis Method: EPA 1664 TPH

QC Batch Method: EPA 1664 TPH

Analysis Description: 1664 SGT-HEM, TPH

Associated Lab Samples: 1259371001

METHOD BLANK: 2173768

Matrix: Water

Associated Lab Samples: 1259371001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Petroleum Hydrocarbons	mg/L	1.0J	5.0	0.37	01/13/16 12:05	

LABORATORY CONTROL SAMPLE: 2173769

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Petroleum Hydrocarbons	mg/L	20	14.9	74	64-132	

MATRIX SPIKE SAMPLE: 2173770

Parameter	Units	10335168004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Petroleum Hydrocarbons	mg/L	ND	20.5	18.2	86	64-132	

SAMPLE DUPLICATE: 2173771

Parameter	Units	10335168004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Petroleum Hydrocarbons	mg/L	ND	1.6J		34	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALITY CONTROL DATA

Project: NPDES-TB Wk 1

Pace Project No.: 1259371

QC Batch: WET/22101

Analysis Method: USGS I-3765

QC Batch Method: USGS I-3765

Analysis Description: USGS I-3765 Total Suspended Solids

Associated Lab Samples: 1259371001

METHOD BLANK: 280841

Matrix: Water

Associated Lab Samples: 1259371001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	1.0	1.0	01/12/16 12:06	

LABORATORY CONTROL SAMPLE: 280842

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Suspended Solids	mg/L	239	238	100	80-120	

SAMPLE DUPLICATE: 280843

Parameter	Units	1259446002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	68.0	64.0	6	10	

SAMPLE DUPLICATE: 280844

Parameter	Units	1259440002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	276	300	8	10	

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## QUALITY CONTROL DATA

Project: NPDES-TB Wk 1

Pace Project No.: 1259371

QC Batch: WETA/15323

Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0

Analysis Description: 300.0 IC Anions

Associated Lab Samples: 1259371001

METHOD BLANK: 280237

Matrix: Water

Associated Lab Samples: 1259371001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfate	mg/L	ND	2.0	0.089	01/11/16 21:33	

LABORATORY CONTROL SAMPLE: 280238

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	50	49.6	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 280239 280240

Parameter	Units	1259446001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	16.5	50	50	68.4	68.5	104	104	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 280241 280242

Parameter	Units	1259386001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	22.8	50	50	75.2	75.3	105	105	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: NPDES-TB Wk 1

Pace Project No.: 1259371

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

PASI-V Pace Analytical Services - Virginia

### BATCH QUALIFIERS

Batch: WET/46018

[BE] Batch extracted by solid phase extraction (SPE).

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NPDES-TB Wk 1

Pace Project No.: 1259371

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
1259371001	SD001 (Seep 020)	EPA 1664 TPH	WET/46018		
1259371001	SD001 (Seep 020)	USGS I-3765	WET/22101		
1259371001	SD001 (Seep 020)	EPA 300.0	WETA/15323		

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## Section A

## Section B

## Section C

**Required Client Information:**

**Required Project Information:**

**Invoice Information:**

**Company:** USS Corporation

Report To: Tom Moore

**Attention:**

Address: P.O.

Copy To:

Company Name:

Email:

Purchase Order #:

**Peace Quote:**

Phone:

Project Name:	NPDES-TB WK
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**Pace Project Manager:** heather.zika@pacelabs.com,

Requested Due Date:

Project #:

Page Profile #:

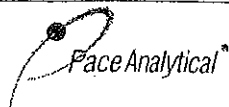
**CHAIN-OF-CUSTODY / Analytical Request D**  
The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed.

PM: HRZ Due Date: 01/20/16  
CLIENT: USS CORP

MO#: 1259371

Page: 1 of 1

[illegible]

	Document Name:	Document Revised: 23Feb2015
	Sample Condition Upon Receipt Form	Page 1 of 1
	Document No.: F-VM-C-001-Rev.09	Issuing Authority: Pace Virginia, Minnesota Quality Office

**Sample Condition Upon Receipt**

Client Name:

Project #:

WO#: 1259371



Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client  
☐ Commercial ☐ Pace ☐ Other:

Tracking Number:

Custody Seal on Cooler/Box Present? ☐ Yes ☒ No

Seals Intact? ☐ Yes ☒ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other:

Temp Blank? ☒ Yes ☐ No

Thermometer Used: ☒ 140792808

Type of Ice: ☒ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read °C: 1.3 Cooler Temp Corrected °C: 1.6

Biological Tissue Frozen? ☐ Yes ☐ No ☒ NA

Temp should be above freezing to 6°C Correction Factor: +0.3

Date and Initials of Person Examining Contents:

Comments: 1/6/16 HZ

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name and Signature on COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered Volume Received for Dissolved Tests?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11. Note if sediment is visible in the dissolved containers.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes Date/Time/ID/Analysis Matrix: WI		
All containers needing acid/base preservation will be checked and documented in the pH logbook.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	See pH log for results and additional preservation documentation
Headspace in Methyl Mercury Container	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Headspace in VOA Vials (>6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

**CLIENT NOTIFICATION/RESOLUTION**

Field Data Required? ☐ Yes ☐ No

Person Contacted:

Date/Time:

Comments/Resolution:

FECAL WAIVER ON FILE Y N

TEMPERATURE WAIVER ON FILE Y N

Project Manager Review:

Date:

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)